

ABSTRACT OF THE DISCLOSURE

An electromagnetic actuator includes a cylinder, a stationary core and a movable core arranged in the cylinder, and a coil located about the cylinder. The movable core moves in the cylinder in accordance with an electromagnetic force, which is generated between the stationary core and the movable core based on the current supply to the coil. The cylinder includes a first cylindrical member made of nonmagnetic material, and a second cylindrical member made of magnetic material. The first cylindrical member surrounds the stationary core and the movable core. A part of the first cylindrical member in the vicinity of the movable core is made thin to form a small diameter portion. The small diameter portion is fitted to the second cylindrical member.